

TO SEP. A. WIST.

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THE GATES OF THE MOUNTAINS

This area was explored as part of the Louisiana Purchase by Lewis and Clark in 1805 and 1806. They thought their journey up the Missouri River had come to an end when they reached what is now Holter Lake because the rock walls appeared to form a dead end. As they continued, the walls gave the illusion of opening to allow their passage, hence the name, "The Gates of The Mountains".

Cover Photo By - Joan Eaton

MONTANA

ECONOMIC INDICATORS

AN ANALYSIS OF PAST AND PRESENT ECONOMIC TRENDS

STATE OF MONTANA

THOMAS L. JUDGE, GOVERNOR

RESEARCH AND ANALYSIS SECTION EMPLOYMENT SECURITY DIVISION DEPARTMENT OF LABOR AND INDUSTRY Post Office Box 1728 HELENA, MONTANA 59601

Volume V Number 1 May 1976

ACKNOWLEDGEMENTS

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Employment, Hours and Earnings, and Labor
Turnover data produced in cooperation with
U. S. Department of Labor, Bureau of Labor
Statistics, and the Manpower Administration

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ANALYSIS FIRST QUARTER 1976

Many economists agree that increased consumer and corporate spending will be required to provide the primary impetus for a complete economic recovery. Thus far, consumer expenditures have carried the largest share of this recuperative burden. If the forecasts of optimistic economists are correct and if logic prevails, then this current strength of consumer demand will stimulate significant increases in business expansion by the second half of 1976. In fact, the latest national statistics suggest that capital investment, especially inventory investment, is already turning upward.

Two factors obviously influence the degree to which consumers spend; consumer sentiment and the availability of capital. Growth rates for both of these factors have been slower in Montana than they have been nationwide. Between first quarter of 1975 and first quarter of 1976, total private gross average weekly earnings for Montanans grew 7.4% while that for the nation increased 7.9%. Since two-thirds of the latest quarterly increase in final sales nationally "was in consumer and business purchases of motor vehicles", perhaps such indications could adequately represent comparable measurements of consumer sentiment. If this is true, then sales of new passenger cars increased nationally at 18.4% between first quarter 1975 and first quarter 1976, while new passenger car registrations in Montana increased 11.7° within this same time interval. In effect, these conclusions suggest that the economic health of Montana is improving, but at a rate slower than the national rate.

^{1/} Juster, F. Thomas, "The Recovery Gathers Momentum", ECONOMIC OUTLEGE U.C.A., Spring, 1970, pt. 53 - 55.

^{2/} BUSINESE CONDITIONS PIGEST, March, 1976.

[/] SURVEY OF CUREENT BUSINESS, April, 1976, page S-16.

^{4/} Ibid, page 1.

[/] Ihid, pane S-40.

Montana is also beginning to demonstrate some viable employment gains in its primary industries. However, these gains in such industries as mining, lumber and wood products manufacturing, and total manufacturing have not been sufficient in offsetting recessionary losses, nor have they kept pace with comparable national employment gains. These findings also substantiate the argument that Montana's recovery lags behind the nation's.

For the most part, Montana's Leading, Selected, Coinciding, and Composite Indicators have exhibited definite improvements on both a short-term and a long-term basis.

Of the state's Leading Indicators, those providing consistently favorable results include nonagricultural placements, total building permits, residential permits, quit rates, layoff rates, average weekly hours in manufacturing, and new business telephone installations. Average weekly initial claims for March and April were not that encouraging, even though the general direction of this series is economically positive. Despite the latest quarterly decline in the number of new corporations, this volatile indicator has increased in the long run. A similar trend can also be seen in the manufacturing rate of new hires. The accession rate was the only Leading Indicator displaying negative tendencies for both long and short-terms.

All of the Coinciding Indicators have improved since the fourth quarter of 1975, except bank debits and manufacturing power sales. This latter indicator, in addition to the total number of unemployed Montanans and commercial and industrial power sales, reacted negatively in relation to comparable figures for last year.

Latest statistics indicate monthly declines in oil production, real average weekly spendable earnings, and Montana nonagricultural employment. Except for

oil production, these same indicators fared well in the long run, however.

Meanwhile, the Farmers Parity Ratic, a soon to be abolished series, improved since last quarter, but declined since last year. On the other hand, performance of the remaining Selected Indicators was generally promising.

Most importantly, both the Montana Composite Index and the Marginal Employment Adjustments Index displayed consistent and significant improvements. In fact, these indices are approaching pre-recession levels.

A fact that bears repeating is that Montana, economically speaking, must stimulate faster growth in the basic industries. If this is not done, then Montana citizens and prospective citizens will have less real money to spend and fewer gainful job opportunities (in comparison to the number of qualified applicants) than most other states. If proposed industrial expansions in Yellowstone County and north central Montana materialize, then, perhaps, the alleviation of this problem could take giant strides toward a solution.

MONTANA COPPER MINING: AN HISTORICAL OVERVIEW

by Joseph M. Michaud Research and Analysis Section Montana State Employment Security Division*

In the late 1870's and early 1880's, many Butte independent miners were panic-stricken by the growing depletion of silver reserves. Marcus Daly, however, visualized even greater wealth in the red metal, which was obviously present within the Butte Hill. After purchasing many mining claims at bargain prices, in 1883, Daly sunk his shaft into the great Anaconda Mine and discovered an abundance of ore containing 30% or possibly even 45% copper.

Subsequently, others jumped on the copper band wagon, including William A. Clark. He, along with Daly, became the wealthiest of the Butte copper and silver barons. This two-tier situation created a power struggle that would last for the next 15 years.

History will show that F. Augustus Heinze was to join this rivalry as a third party, at least to the extent of acquiring additional copper riches. Heinze, after becoming equipped with sufficient capital and engineering knowledge, made his second arrival in Butte in 1892. He then began to produce copper as an independent miner. Heinze became prosperous because of his wise use of the "apex theory", which states that a prospector is allowed to follow and mine a vein downward from its opening near the surface(apex). This young copper king, being convinced by high smelting costs, by abundant copper losses to treatment processes, and by an accidental discovery of the leaching process, raised additional capital for his own smelter.

Having a yard full of tin cans and iron junk on the slope of the Anaconda Mine enabled Jim Ledford to observe the crudest form of the leaching process. Copper sulphate waste, flowing from the Anaconda, passed over the metal debris and left a residue of slush, which was highly composed of copper.

Meanwhile, in the 1890's the power feuds and prosperity continued. Butte's population began to grow at an exorbitant rate. The stage was now set for forming the Anaconda Copper Mining Company.

During a bout with ill health and a simultaneous political bout with Clark, Daly, near the turn of the century, became the first to divest his copper interests to the Amalgamated Copper Company, a subsidiary of the Standard Oil Company. Later W. A. Clark was elected to the United States Senate, which stimulated his lack of active interest in copper holdings and, subsequently, influenced his mining sales to Amalgamated. These transactions left Heinze with very little support in his apex encounter with Amalgamated, soon to be called The Anaconda Copper Mining Company. In 1906, Heinze finally sold out, but not without receiving a favorable price for his claims.

^{*} The author wishes to express his sincere appreciation to The Araconda company and its employees Atopien M. Williams, Counsel, and Robert P. Corbert, Vice President, Administration, for providing information and bleas included in this article.

Economic logic dictates that profits can only be realized when the total monetary amount of sales exceeds operational costs. For this principal to hold true in copper mining, there has always been, since the first copper mines in ancient Spain a requirement for extensive capital or other form of financial support. A Huge investments are necessary in this industry, because demand is present but not to the extent of providing profits to small-scale operators. As ores decline in metal content and become geologically more difficult to extract, capital requirements intensify in order to maintain economic viability.

Fortunately, there are two types of technological advances that can be applied to reinforce feasibility within the industry. Demand for copper can be stimulated by the development of new reasons for product usage and by the development of defenses against substitute products. Technology can also be useful in providing better and more efficient methods of extracting copper.

Labor costs and unionization have also had dramatic effects on copper mining in the past fifty years.

Available literature suggests that, at one time or another, all of these mentioned forces have exerted pressure on Montana's copper industry.

From the inception of The Anaconda Copper Mining Company to the Stock Market crash of 1929, evidence implies that mining in Butte provided prosperity to its investors and to its miners. Increased industrialization played a major role in this growth. Mass production of the automobile made this product a primary user of copper. Growing use of electricity, electrical appliances, and plumbing facilities stimulated additional demand for copper and its alloys. The advent of World War I also favorably affected this prosperous destiny.

The Great Depression depleted capital reserves of both industrial buyers and ultimate consumers. Thus, demand for copper usage, especially in automobiles and housing, declined tremendously. Lower copper prices followed. Even though red metal prices began rising again in the mid-1930's, reasonable figures were not observed until the late 1930's.

In 1940, prices fell again and the future began to look grim for copper mining in Butte. It appeared as though ore reserves were becoming less plentiful and lower in copper content. Despite the increasing need for copper during the War, 8,000 residents migrated from Butte in the next eight years (1940 - 1948).

Fortunately, exploratory efforts turned fruitful in 1947. Two huge deposits of ore were discovered in back of the Butte Hill. Economic stability was restored in this community. In fact, during the last week in November 1950, 1,000 new houses were built or were in the process of being built. $\frac{11}{12}$

These newly found ore bodies were large in structure but low in copper contert. With these characteristics, some of the ore could be feasibly mined by some form of block caving. Adhering to simplicity, this underground mining technique can best be described by the following passage:

"Block caving involves undercutting the ore with a series of tunnels, so that, once it is honeycombed with holes, it will crumble, like sawdust in a termite-infested house, and fall by its own weight into cars to be hauled away for smelting." 13/

An additional boost was given to Butte's economy in July 1955. On this date, open-pit copper mining became known to the area. $\underline{14}$ From this time until the early 1970's, The Anaconda Company had employed four methods of producing the red metal in Butte and those were: underground hardrock mining, underground block caving, leach dumping, and open-pit surface mining. $\underline{16}$ As time passed through this time span of nearly twenty years, employment in open-pit operations increased, while inability to produce profits caused a gradual decline in underground operations. Some mines formerly existed in an area now known as the Berkeley Pit. $\underline{16}$ In addition to surface mining, expansion has also taken place in the area of leach dumping. $\underline{17}$

This time period was not always prosperous for Butte residents. In fact, two devastating labor disputes plagued the industry in the past ten years. The first of these disasters began on July 15, 1967 and lasted a long and bitter eight and one-half months, while the second commenced only four years later (July 1, 1971) and continued for approximately two and one-half months. These labor-management negotiations created many economic hardships for all concerned; remaining strikers lost millions in aggregate personal income, the Company itself lost millions in expected sales not realized, and many local entrepreneurs lost thousands in overdue and unpaid accounts.

In addition to this, Butte's largest employer received another blow to its economic stability from the Chilean government. This South American country decided to buy out Anaconda's interest (at prices far below their estimated worth) and nationalize its copper industry. 21/2 The company is still receiving income tax write-offs because of this loss.

This Chilean incident and the two major labor disputes has led to management reorganizations, and attempts by other firms to gain future tax advantages by acquiring control of Anaconda. The Company has also had to adhere to stronger environmental legislation. In addition, diminishing copper prices hurt the industry in 1974 and 1975.

Despite these discouraging facts, The Anaconda Company and Butte must strive toward stability. Presently, the Company cannot continue with unfeasible operations and remain as a future viable employer for the community. Layoffs have occurred through a realization of this economic fact. Butte, on the other hand, cannot maintain viability as a single-industry town. A warehouse and transportation center (Port of Butte) and a multi-million dollar engineering research project (MHD) provide concrete evidence that Butte is beginning to diversify.

The long-run future for copper mining is expected to be one without growth, unless technological advances justify the feasibility of mining ores beneath the Berkeley Pit or unless Butte's central business district relocates sufficiently to resume underground activity. Meanwhile, Berkeley Pit operations should remain stable for the next 18 to 20 years and should produce at its present rate, since concentrator capacity prohibits profitable production at a slower and at a faster pace.

From as far back as 1935, at least one source predicted that Butte and its copper mining industry would only flourish another twenty years. Butte and its primary economic base has survived twenty years in excess of this prediction, and they are expected to survive an additional twenty years. Finally, this expected life is quite capable of being extended by new engineering technology, which, incidentally, has rescued this community several times in the past.

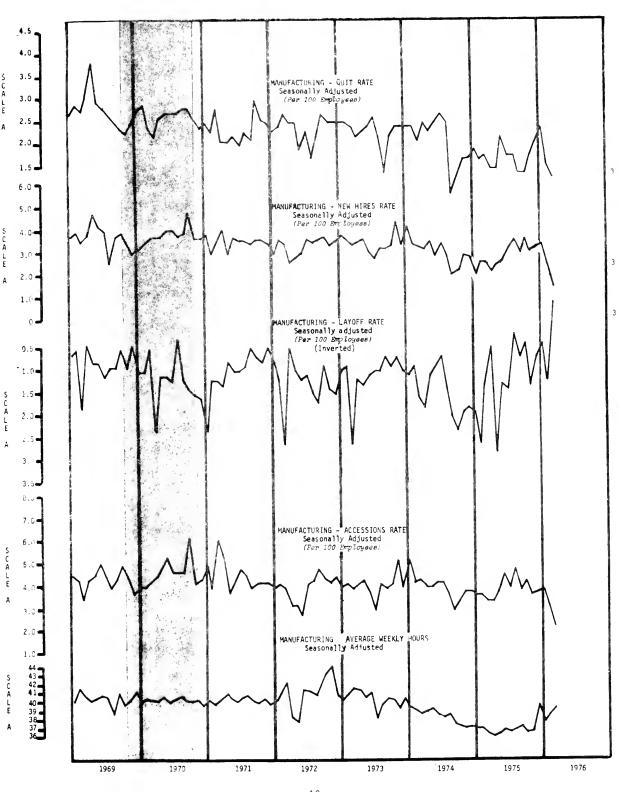
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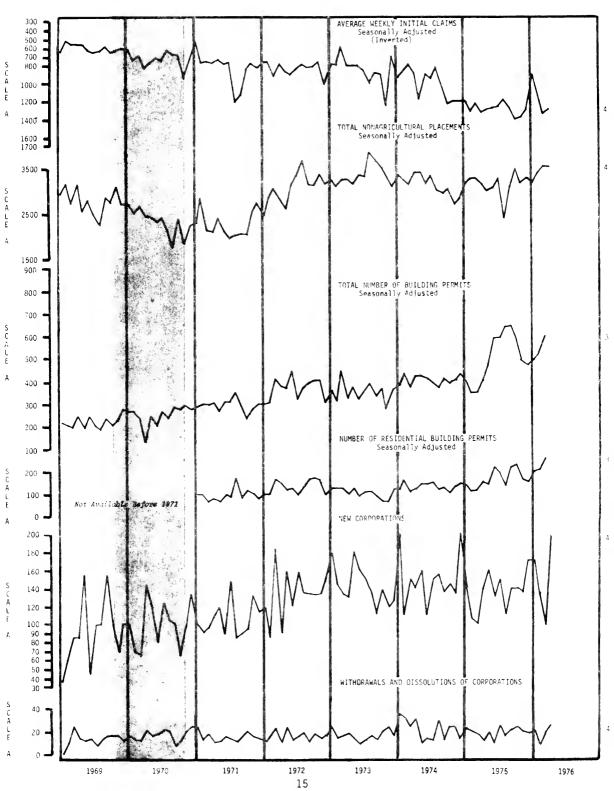
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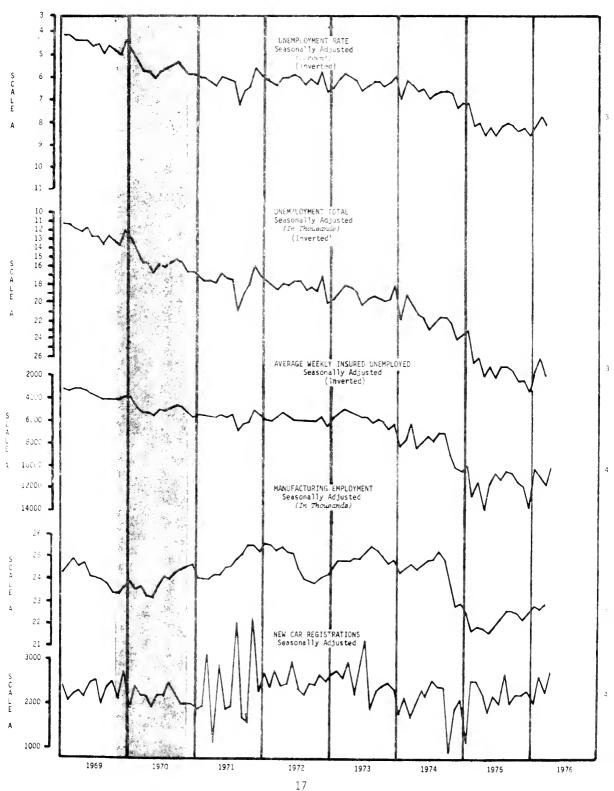
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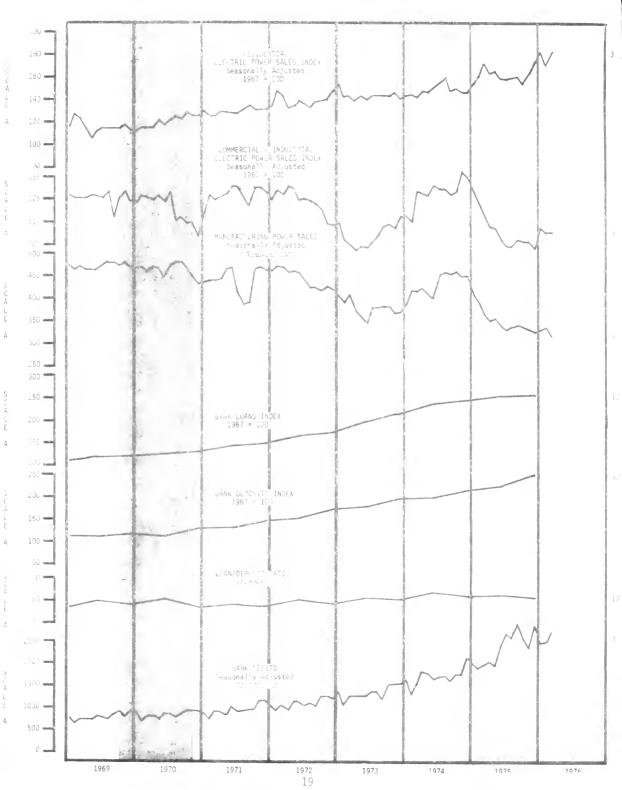
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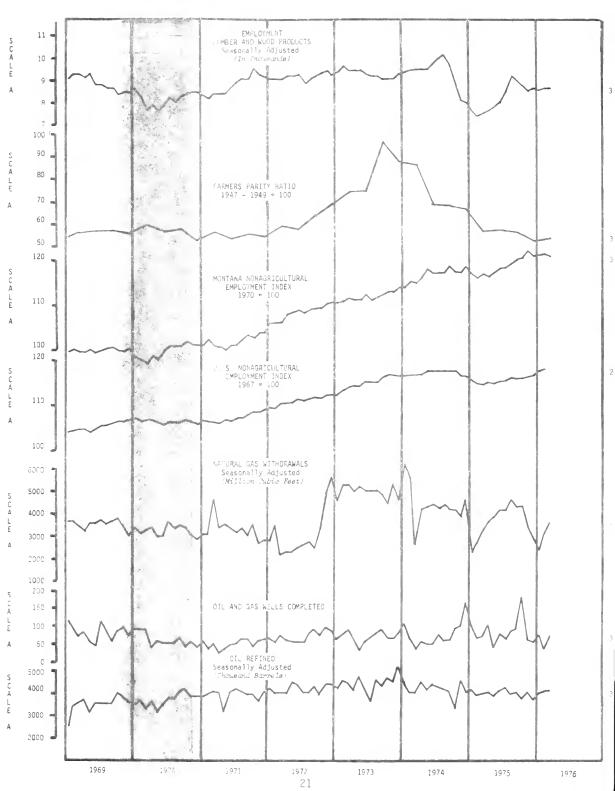
Bank Debits (81,000,000)	ADJ	1,542.6 1,417.0 1,507.3 1,824.8 1,721.8 1,720.7 1,720.7 1,696.4 1,647.6 1,647.6	1,934.5 1,849.9 1,924.6 2,003.8 1,931.0 2,594.4 2,581.9 2,588.0 2,318.9 2,794.2	2,407.3 2,458.9 2,675.0
Bank [UNADJ	1,607.0 1,293.8 1,484.5 1,782.2 1,756.0 1,635.6 1,689.0 1,590.2 1,739.6 2,095.8	2,069.7 1,648.6 1,863.7 1,932.1 1,986.2 2,388.2 2,531.5 2,547.9 2,362.4 2,362.4	2,459.9 2,252.2 2,611.8
Loan/ Deposit Ratio (Percent)	UNADJ	67.6	64.5	
Bank Deposits Index	= 100	201.2	225.2	
Bank Loans Index	1967	237.0	252.0	
turing Sales od KWH)	ADJ	385.2 409.8 409.8 416.8 407.4 448.5 455.2 446.8 446.8	404.4 387.0 360.3 348.4 351.2 335.0 325.2 325.2 326.4	325.9 330.1 311.5
Manufacturing Power Sales (Thousænd KWH)	UNADJ	404.8 407.6 431.4 428.8 409.4 400.7 433.9 445.8 446.5	424.2 388.4 373.9 351.3 349.1 321.3 317.8 319.7 318.7 339.2 331.2	346.0 331.7 324.8
Commercial- Industrial Electric Power Sales Index 1967 = 100	ADJ	117.9 114.2 126.3 126.3 124.7 130.2 127.8 128.1 125.5 135.5	127.3 122.9 117.0 111.9 110.7 106.1 103.2 104.9 104.9	111.2 109.1 109.2
Comme Indus Electri Sales 1967 :	UNADJ	115.9 1111.4 1127.6 126.2 128.2 128.2 128.5 128.5 127.9 138.6	127.4 119.9 110.3 111.0 102.5 102.7 103.6 105.7 105.0	111.4
Residential Electric Power Sales Index 1967 = 100	ADJ	142.2 142.2 143.3 143.1 148.1 152.5 156.0 147.0 145.1	152.0 158.6 170.4 162.0 163.4 156.6 156.2 157.4 162.0	180.3 168.3 180.5
Reside Electr Sales 1967	UNADO	179.1 174.6 144.6 133.6 131.3 132.0 136.0 136.1 143.4 165.0	188.5 191.7 163.8 155.5 139.0 137.1 141.1 159.1 159.1	216.8 201.1 191.7
		Jan. Feb. Mar. Apr. Jun. Jul. Sep. Oct.	Jan. Feb. Mar. Apr. Jun. Jul. Sep. Oct.	Jan. Mar. May. Jun. Jun. Sep. Oct.
		1974	1975	1976



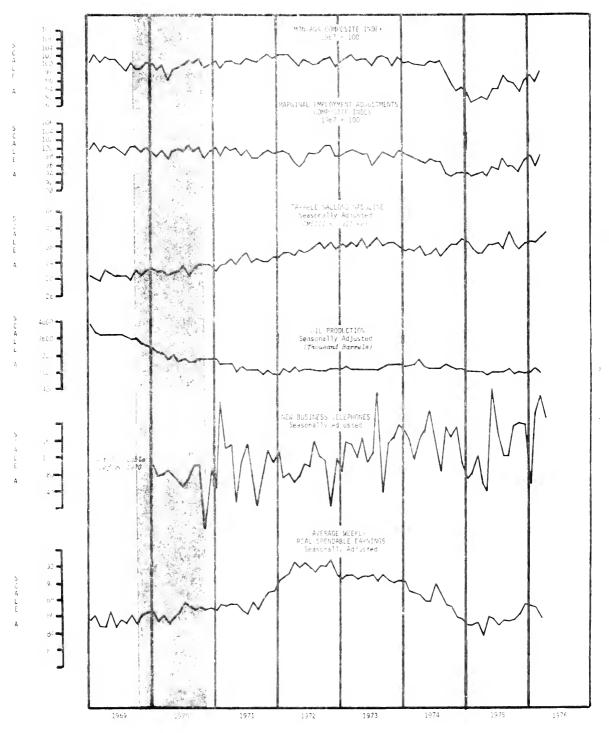
(8)		a		+ m al al a		210.00.10.50.2	> #10
fined Barrels)	ADJ	4,177 3,925 3,928 4,258	4,048 4,164 4,139	4,004 3,908 3,162 4,372 3,948	4,181 3,931 4,003 4,026	3,320 4,135 4,259 4,017 4,055 3,797 4,025 3,735	4,027 4,134 4,156
Oil Refined	UNADJ	4,205 3,644 3,922 3,751	3,785 4,252 4,398	4,418 4,020 3,112 4,322 4,225	4,269 3,610 3,969 3,506	4,229 4,599 4,599 4,436 4,135 3,670 4,181 3,947	4,136 3,809 4,117
Oil and	Completed	91 53 28 44	37 61 61	4/ 50 81 91 153	88 61 92	55 73 73 166 53	77 40 75
l Gas awals $ au_{m{u},Ft}$.)	ADJ	5,966 5,378 2,361 3,971	4,082 4,168 4,100	4,170 4,050 4,031 3,723 4,365	2,300 2,698 3,250 3,672	4,129 4,172 4,601 4,328 4,354 3,391 2,920	2,393 3,086 3,593
Natural Gas Withdrawals (Willion Cu.F	UNADJ	7,899 6,503 3,029 3,571	3,340 3,192 3,052	3,101 3,079 3,345 4,091 6,190	4,096 3,605 3,914 3,199	3,110 3,202 3,157 3,737 3,510 4,023 4,023	4,182 3,996 4,262
ultural t Index**	U. S.	116.3 116.3 116.4	117.1	117.6 117.5 116.7 116.1	115.3 114.7 114.6 114.9	115.5 115.0 115.8 115.9 115.9	117.5
Nonagricultural Employment Index	MONTANA	114.0 115.2 114.9 116.1	118.1 117.1 117.3	117.4 117.6 117.4 118.7	117.1 116.1 117.1 116.5	118.3 118.5 119.2 120.3 122.2 121.1	121.2 121.5 120.9
Farmers	Ratio*	84	29	67	55	56 57 58	54
oyment- iber and Products Thousands)	ADJ	0000 4000	10.01	8.0	7.77		88.8
Employment- Lumber and Wood Produc	UNADJ	9.1	10.2	10.2	77.7.3		888
		Jan. Feb. Mar. Apr.	May June July	Sep. Oct. Nov. Dec.	Jan. Mar. Apr.	June July Aug. Sep. Nov. Dec.	Jan. Reb. Mar. Apr. June July Aug. Sep. Oct. Dec.
		1974			1975		1976

0.5.: 1367 = 100

** M. W. W. M. 1. 1. 270 = 100



Average Weekly Spendable Earnings	88.29 89.82 87.64 88.76 88.38 87.31 87.52 88.35 87.44 91.50 89.69 90.31 88.56 88.40 88.40 88.40 85.40 85.40 85.40 85.40	83.19 84.77 82.90 84.83 83.58 85.06 82.77 83.55 85.48 85.71 86.37 85.41 86.63 84.77 87.04 85.32 86.81 85.21 86.81 85.21 86.48 85.41 86.48 85.41	85.35 86.95 84.77 86.75 84.02 85.52
Gross Average Weekly Earnings	143.47 146.37 144.08 147.56 145.20 147.81 148.78 148.78 152.21 150.92 159.90 156.75 157.38 154.25 157.75 155.47 154.28 155.78	152.28 155.26 152.80 156.46 155.09 157.68 154.22 157.79 157.24 158.46 160.81 159.55 163.52 160.25 165.07 161.34 165.53 162.27 168.98 163.63 165.34 165.57	165.89 168.92 164.98 168.74 163.70 166.27
New Business Telephones	221 180 154 156 122 111 224 162 344 180 342 224 204 158 41 82 95 195 83 160 62 194	89 63 136 73 136 116 82 49 188 32 398 273 229 170 38 116 131 184 106 193 112 190	77 51 207 215 276 257 236 206
Oil Production (Thousand Earrels)	2,907 2,920 2,667 2,903 3,028 2,932 2,990 3,046 3,009 2,900 2,839 2,852 2,885 2,831 2,885 2,831 2,886 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887 2,887	2,768 2,777 2,548 2,763 2,854 2,752 2,701 2,753 2,683 2,712 2,707 2,707 2,793 2,707 2,777 2,798 2,777 2,798 2,777 2,798 2,777 2,798 2,777 2,798 2,777 2,798 2,777 2,798	2,732 2,742 2,611 2,824 2,805 2,702
Taxable Gallons Gasoline [Thousand Gallons]	29,558 36,918 28,329 37,496 31,589 36,989 34,118 38,082 36,058 35,799 41,047 36,511 49,953 37,607 49,938 35,847 38,482 37,367 39,202 38,627 35,052 38,379	32,027 39,260 28,261 37,428 30,835 36,309 32,217 36,313 38,603 38,300 42,723 38,364 51,173 38,851 51,450 37,404 43,364 41,241 39,571 38,829 33,913 37,199	31,913 39,082 29,664 38,831 34,652 40,163
Marginal Employment Adjustments Index	1	993.1 998.6 998.6 998.8 998.9 998.9	97.6 95.1 97.4
MONTANA Composite Index	974 Jan. 100.0 Feb. 100.2 Mar. 99.7 Apr. 99.3 Jun. 100.3 Jun. 100.2 Aug. 100.2 Sep. 97.8 Oct. 94.7 Nov. 93.4	75 Jan. 92.7 Feb. 90.3 Mar. 91.0 Apr. 91.6 May 91.0 Jun. 93.7 Jul. 93.7 Aug. 96.7 Sep. 95.2 Oct. 94.8 Nov. 92.7	976 Jan. 96.8 Feb. 95.0 Mar. 97.4 Apr. May Jun. Jul. Aug. Sep. Oct. Nov.
	19	197	19.



			MONTH	LY DATA		PERCENT	CHANGE
INDICATOR	TIMIL		t Month 976	Last Month	Last Year	Last Month	Last Year
LEADING INDICATORS	UNIT	1	70	MOTION	<u>rear</u>	Month	iear
Initial Claims Seasonally Adjusted Unadjusted	Avg. No./Wk. Avg. No./Wk.	Apr: Apr:	1,310 1,249	1,362 1,326	1,357 1,295	-3.8 -5.8	-3.5 -3.6
Nonagricultural Placements Seasonally Adjusted Unadjusted	Number Number	Apr: Apr:	3,499 3,247	3,518 2,744	3,100 2,839	-0.5 18.3	18.9 14.4
Total Building Permits Seasonally Adjusted Unadjusted	Number Number	Mar: Mar:	595 553	512 319	343 302	16.2 73.4	73.5 23.1
Residential Building Permits Seasonally Adjusted Unadjusted	Number Number	Mar: Mar:	258 265	200 146	116 123	29.0 81.5	122.4 115.4
Quit Rate Seasonally Adjusted Unadjusted	Rate/100 Rate/100	Mar: Mar:	1.2	1.5 0.6	1.7	-20.0 0	-29.4 -45.5
New Hires Rate Seasonally Adjusted Unadjusted	Rate/100 Rate/100	Mar: Mar:	1.5	2.5 1.1	2.4	-40.0 -18.2	-45.3 -47.1
Layoff Rate Seasonally Adjusted Unadjusted	Rate/100 Rate/100	Mar: Mar:	-0.4 0.1	1.3	1.4 1.8	-121.4 -88.9	-12°.6 -94.4
Accession Rate Seasonally Adjusted Unadjusted	Rate/100 Rate/100	Mar: Mar:	2.1	3.0 1.5	3.2 2.6	-30.0	-30.3 -40.7
Average Weekly Hours-Mfg. Seasonally Adjusted Unadjusted	Hours Hours	Mar: Mar:	39.2 38.7	38.3 37.9	36.3 35.8	2.3	:
New Business Telephones Seasonally Adjusted Unadjusted	Number Number	Apr: Apr:	206 236	257 2 7 6	49 82	-19.8 -14.5	320.4 187.
New Corporations	Number	Apr:	198	101	138	en.0	48.6
Withdrawals & Dissolutions of Corporations	Number	Apr:	23	20	11	15.0	109.1

			17,701	HLY DATA		PERCENT	CHANGE
INDICATOR COINCIDING INDICATORS	TIRU		st Month 1976	Last Month	Last Year	Last Month	Last Year
Inemployment Rate Seasonally Adjusted Unadiusted	Percent Percent	Mar; Mar:		7. ~ 3. ^	e. o o. o	c.: -7,1	
nemployment Rate Seasonally Adjusted Unadjusted	Thousands Thousands	Mar:		26.3 31.8	26.1 29.3	7.0 -1.6	
Insured Unemployed Seasonally Adjusted Unadjusted	Avg.Wkly.No. Avg.Wkly.No.		10,282 11,593	11,542 14,187	13,767 15,065	-11.7 -18.3	- ° £ . £ - 0 £ . ¢
Manufacturino Employment Seasonally Adjusted Unadjusted	Thousands Thousands	Mar:		22.7 21.6	21.9	0.0 -1.4	4.7
New Car Registrations Seasonally Adjusted Unadjusted	Mumber Mumber	Apr:		2,298 2,364	2,173 2,340	£2.7 30.3	74.7 71.6
Pesidential Power Sales Seasonally Adjusted Unadjusted	Index Index	Mar: Mar:		168.3 201.1	170.4 181.7	7.9 -1.2	ê 1
Manufacturing Power Sales Seasonally Adjusted Unadjusted	Thousand K Thousand KW			330.1 331.7	360.3 373.1	-0.0 -2.1	-17.1 -73.1
Commercial - Industrial Power Sales Shasonally Adjusted Phadiusted	Index Index	Mar:		109.1 106.0	117.0 117.0	1.1 2.2	e.: e.:
Pank Loans	Index 197	nec:	252.1		240.8		4.~
cank Debits Seasonally Adjusted Enadiusted	\$1,000,000 \$1,000,000		2675.0 2611.3	2458.9 2 252.2	1924.6 1863.7	2. 1 10. 0	50. 40.1
Sank Menosits	Index 19	75 Dec:	244.1		214.3		; c

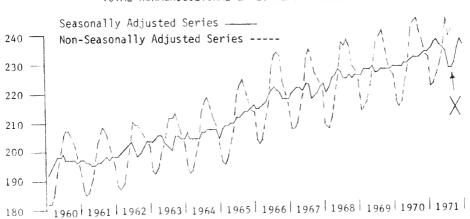
			MONTH	LY DATA		PERCEN	T CHANGE
INDICATOR	UNIT		t Month 976	Last Month	Last <u>Year</u>	Last <u>Month</u>	Last Year
SELECTED INDICATORS							
Employment - Lumber and Wood Products Seasonally Adjusted Unadjusted	Thous ands Thous ands	Mar: Mar:	8.7 8.2	8.7 8.3	7.6 7.1	- 1.2	14.5 15.3
Farmers Parity Ratio	Ratio	Mar:	54	-	55	-	- 1.p
Montana Nonag. Employment	Index	Mar:	120.9	121.5	117.1	- 0.5	3.3
U. S. Nonag. Employment	Index	Feb:	117.9	117.5	114.7	0.3	2.8
Natural Gas Withdrawals Seasonally Adjusted Unadjusted	Mil.Cu.Ft. Mil.Cu.Ft.	Mar: Mar:	3,593 4,262	3,086 3,996	3,250 3,914	16.4 6.7	10.6 8.9
Oil & Gas Wells Completed	Number	Mar:	75	40	61	37.5	23.0
Oil Refined Seasonally Adjusted Unadjusted	Thous.Bbls Thous.Bbls	Mar: Mar:	4,156 4,117	4,134 3,809	4,003 3,969	0.5 8.1	3.8 3.7
Oil Production Seasonally Adjusted Unadjusted	Thous.Bbls Thous.Bbls	Mar: Mar:	2,702 2,805	2,824 2,611	2,752 2,854	- 4.3 7.4	- 1.8 - 1.7
Taxable Gallons Gasoline Seasonally Adjusted Unadjusted	Thous.Gals Thous.Gals	Mar: Mar:	40,163 34,652	38,831 29,664	36,309 30,835	3.4 16.8	10.6 12.4
Average Weekly Spendable Earnings Seasonally Adjusted Unadjusted	Dollars Dollars	Mar: Mar:	85.52 84.02	86.75 84.77	85.06 83.58	- 1.4 - 0.9	0.5 0.8
Loan/Deposit Ratio	Percent 1975		60.3	-	64.1	-	- 5.2
COMPOSITE INDICATORS							
Montana Composite Index	Index	Mar:	97.4	95.0	91.0	2.5	7.0
Marginal Employment Index	Index	Mar:	97.4	95.1	93.1	2.4	4.6

APPENDIX I

GLOSSARY

<u>Seasonal Adjustment</u> - A mathematical procedure in which certain monthly or yearly variations such as climate, holidays, vacation practices, etc., are removed from the statistics. The purpose of this is to simplify analysis over a long period of time and to highlight such non-seasonal occurances as strikes, natural disasters, floods, earthquakes, etc.

<u>Non-Seasonally Adjusted</u> - or "raw" data will not always reflect such occurances precisely because of seasonal influences. For example, the following chart is a graph of total nonagricultural employment for the State of Montana for the years 1960 to 1971.



TOTAL NONAGRICULTURAL EMPLOYMENT - MONTANA

Note the erratic nature of the non-adjusted data, and that a non-seasonal phenomena occurred in 1971 directly above the "X" mark. During this period a labor-management dispute occurred and the seasonally adjusted figures emphasize this point whereas the dispute is not readily apparent in the non-adjusted data. A word of caution is due at this point about non-adjusted and adjusted data. Adjusted data is not a "substitute" for actual data, and should in no way be used as such.

Economic Indicators - Scatistical time series whose cyclical characteristics are known and fairly stable, particularly in the timing of their cyclical peaks and troughs relative to business cycle turns. Economic Indicators are used for the interpretation of current, and the anticipation of prospective, business conditions.

Leading Indicators - An economic series that tends to reverse direction sufficiently in advance of changes in total business activity. The peaks and troughs of this type of indicator generally occur from three to several months previous to the peak or trough in total business activity.

<u>Considental Indicators</u> - An economic series that tends to parallel the same general pattern of total business activity.

<u>Selected Indicators</u> - A cyclical time series whose true value as an **economic** indicator is not yet known.

<u>Lagging Indicators</u> - An economic series that tends to reverse direction (reach its peaks or troughs) some time after the total business pattern has changed.

Other Indicators - A statistical series that combines the cyclical changes of the other types of economic indicators. For example, personal income generally lags at the peaks, and leads at the troughs of total business activity.

Morecana Composite Index - A composite of six leading indicators of employment and economic activity: Building Permits, Manufacturing Employment, Average Weekly Hours, Average Weekly Initial Claims, Accession Rate and Layoff Rate. A reverse trend has been used for Layoff Rate and Average Weekly Initial Claims. The components are converted to series of standardized changes and weighted according to their significance and reliability as economic indicators in making the composite. This composite index is not comparable to the U.S. composite index as published in "Business Conditions Digest", U.S. Department of Commerce.

Marginal Employment Adjustments Index - A composite of four leading indicators of employment changes or adjustments: Average Weekly Hours, Average Weekly Initial Claims, Layoff Rate, and Accession Rate. In producing the composite these components are seasonally adjusted, converted to series of standardized changes, and weighted according to their significance and reliability as economic indicators. This composite indicator tends to lead changes in the unemployment rate by approximately five months.

Labor Turnover - The movement of wage and salary workers in and out of employment status.

<u>Accessions</u> - All permanent or temporary additions to the employment rolls, which include new hires and other accessions.

New Hires - Permanent and temporary additions to employment rolls of persons who have never been employed by a specific reporting establishment. This includes former employees who have been rehired although not specifically recalled by the reporting employer.

Other Accessions - Additions to the employment rolls of transfers from other establishments of the same company; employees returning from military service or unpaid leaves of absence; employees specifically recalled by an employer.

<u>Separations</u> - The termination of employment of persons who quit, are laid off, discharged, retire, die, are inducted into the military for service exceeding 30 consecutive days, suffer physical disabilities, or are transferred to other divisions of the same company.

<u>Quits</u> - The termination of employment initiated by an employee for any reason other than retirement, transfer, or service in the Armed Forces.

<u>Layoffs</u> - Suspension from pay status of an employee, expected to last seven consecutive days. This action must be initiated by the employer without prejudice to the worker, for reasons such as lack of orders, model changeover, termination of seasonal employment, inventory-taking, plant breakdown, shortage of materials.

SERIES BREAK - Pages 13 and 17

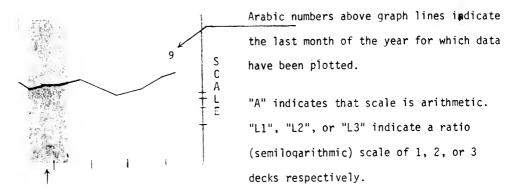
Beginning with January 1970, the following series, Montana Unemployment Rate, Montana Unemployment Total, and Montana Nonagricultural Employment Index, were changed to reflect a change in the concept of measuring employment requested by the U. S. Department of Labor of all State Employment Security Agencies. The change was made to ensure comparability between states, and to make employment data published by this agency for Montana comparable to national labor force concepts. Civilian Labor Force series now reflect a count of employed and unemployed persons by place of residence (known as residence data) rather than by place of work (known as establishment data). The years 1970, 1971, 1972, and 1973 were revised to the residence concept and as a result data after January 1970 are not strictly comparable to data published earlier.

Conceptually, the difference between the old "Work Force" and the new "Labor Force" series is that the <u>new</u> series eliminates duplicate counting of multiple job holders, and persons who work in Montana but reside in another state. However, people who live in Montana but work elsewhere are included in the new "Labor Force" estimates.

Residence and establishment data supplement one another and the Montana Employment Security Division will continue to publish establishment data for nonagricultural industries on employment, hours and earnings, and labor turnover for those users who need this type of information.

APPENDIX II

KEY

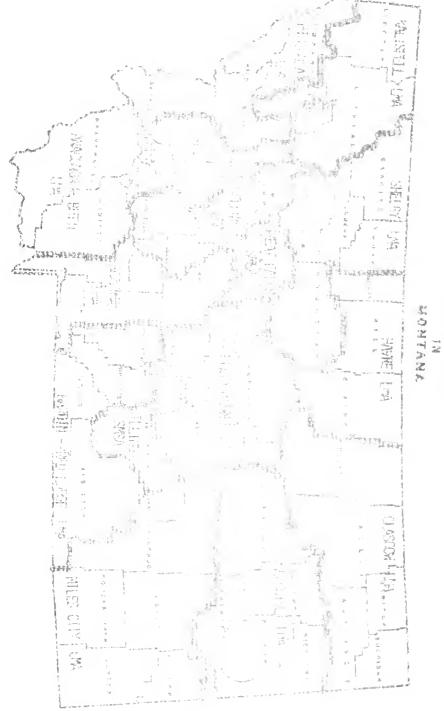


Shaded areas on the graph indicate recession periods in the United States as designated by the National Bureau of Economic Research.

Broken lines on graphs indicate that data is not available for that time period.

Montana's indicators have been classified into three types; Leading, Coinciding, and Selected. The classification of Montana's Leading and Coinciding Indicators parallels the Department of Commerce, Bureau of Economic Analysis classification. This has been done to facilitate an easier and more accurate comparison of individual indicators with those of the nation. (This classification, however, does not mean that the Montana Employment Service has endorsed any particular economic theory.)

Historical data available upon request.



LABOR MALKET AREAS

EMPLOYMENT SECURITY DIVISION DEPARTMENT OF LABOR AND INDUSTRY P. O. Box 1728 Helena, Montana 59601

POSTAGE AND FEES PAID EMPLOYMENT SECURITY MAIL LAB 449

OFFICIAL BUSINESS

The Montana State Employment Service maintains 23 local employment offices in the principal cities of Montana. You are invited to call on any of these offices for assistance in filling positions in your organization, additional labor market information, and for other services in connection with your employment problems.